

YH FOAMGLASS INDUSTRIAL CO.,LTD CHINA

Material Safety Data Sheet

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Section I - Product Identification

Manufacturer/Supplier:

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Product Name: CELLULAR GLASS INSULATION

Generic Name: Cellular Glass

CAS Number: N. AP.

CAS Name: N. AP.

NFPA HAZARD CLASS: Health: 0 Fire: 0 Reactivity: 0

WHMIS CLASSIFICATION: CLASS D Division 2B

Use: Insulation of tanks, spheres, piping, roofs and equipment

Section II - Hazardous Ingredients

Ingredient	CAS Number	% by Vol.	* ACGIH				NTP*** IARC OSHA Reg.
			TLV	OSHA** PEL	OSHA** STEL	OSHA** CEILING	
Hydrogen Sulfide	7783-06-4	<1.2	10 ppm	10 ppm TWA	15 ppm	N. AV.	No
Carbon Monoxide	630-08-0	0-4	25 ppm	50ppm TWA	N. AV.	100 ppm	No
Carbon Dioxide	124-38-9	85-95	5000ppm	5000 ppm TWA	N. AV.	N.AV.	No
Glass Dust (PNOC)	N. AP.	Varies	10 mg/m ³	15 mg/m ³ 5 mg/m ³ (respirable)	N. AV.	N. AV.	No
Crystalline	14808-60-7	<0.1 – 0.6	0.05 mg/m ³	30/(%Si O ₂ +2)mg/m ³ (Total) Silica (Respirable 10/(%Si O ₂ + 2)mg/m ³ (Respirable) Quartz)			

Comment: N. AV. - Not Available
N. AP. - Not Applicable
PNOC - Particulates Not Otherwise Classified

* Chinese Conference of Governmental Industrial Hygienists.

* See Section VI - Toxicological and First Aid Information of this MSDS.

Section III - Physical Data

-Physical State at 77°F (25°C):	Solid	-Freezing Point:	N. AP.
-Boiling Point:	N. AP.	-Melting Point:	1350°F (732°C)
-Vapor Pressure (mm of mercury):	N. AP.	-Specific Gravity (Water = 1):	0.11-0.22
-Vapor Density (Air = 1):	N. AP.	-Percent Volatile (By Volume):	N. AP.
-Solubility in Water:	Insoluble	-Evaporation Rate (Butyl Acetate = 1):	N. AP.
-Appearance and Odor:	Black cellular material, no odor unless cut or crushed	-Evaporation Rate (Ethyl Ether = 1):	N. AP.
-Odor Threshold:	0.002 ppm	-pH:	N. AP.
-Coefficient of Water/Oil Distribution:	N. AP.		N. AP.

Section IV Fire and Explosion Hazard Data

Flash Point: N. AP. Flammable Limits: LEL: N. AP. UEL:N. AP.
(percent by volume)

Auto Ignition Temperature: N. AP. Extinguishing Media: Water, dry chemical or carbon dioxide

Special Fire Fighting Procedures: N. AP.

UNUSUAL FIRE AND EXPLOSION HAZARDS: May release hydrogen sulfide and carbon monoxide gas when involved in a fire. The small amounts of hydrogen sulfide and carbon monoxide released are not expected to contribute to the intensity of a fire.

Hazardous Combustion Products: Hydrogen sulfide, carbon monoxide and various hydrocarbons

Explosion Data: Sensitivity to mechanical impact: N. AP.

Sensitivity to static discharge: N. AP.

Section V - Reactivity Data

Stability: Stable Conditions to Avoid: N. AP.

Incompatibility (materials to avoid): N. AP.

Hazardous Decomposition or Byproducts: None

Hazardous Polymerization: Will not occur Conditions to Avoid: N. AP.

Section VI - Toxicological and First Aid Information**HYDROGEN SULFIDE**

OSHA Permissible Exposure Level: See Section II. PEL for hydrogen sulfide may be reached if 1 cubic ft of material is crushed in a closed space of 3000 cubic ft.

Routes of Entry: Inhalation: Yes Skin: No Ingestion: Unlikely
Eye Contact: Yes

Section VI - Toxicological and First Aid Information

Effects of Overexposure: Effects of overexposure to hydrogen sulfide gas when cells are broken without adequate ventilation:

Acute: Inhalation - headache, nausea, and difficult breathing, dizziness.

The sense of smell may be fatigued over time. The odor and irritating effects do not offer dependable warning to workers who maybe exposed to gradually increasing amounts and therefore become used to it.

Eyes - irritation and inflammation of the mucous membrane, tearing, sensitivity to light.

Chronic: Chronic poisoning results in headache, inflammation of the eyelids and the mucous membrane that lines the inner surface of the eyelids, digestive disturbances, weight loss and general weakness.

Medical Conditions Generally Aggravated by Exposure to Hydrogen Sulfide: Pre-existing upper respiratory and lung diseases such as, but not limited to bronchitis, emphysema and asthma, pulmonary heart disease or eye problems.

GLASS PARTICLES

Routes of Entry: Inhalation: Yes Skin: No Ingestion: Yes
Eye Contact: Yes

Effects of Exposure to Glass Particles:

Skin - irritation or abrasion from glass particles.

Ingestion - possible abrasion of mouth and throat from glass particles.

Other Toxicological Properties: None known

Emergency and First Aid Procedures:

Eyes: Flush with potable water for 15 minutes, do not rub or apply pressure. Consult physician or emergency medical service.

Skin: Wash thoroughly without pressure. If irritation persists or skin is broken, consult physician.

Inhalation: Remove victim to fresh air, apply artificial respiration if needed. Call poison center, physician or emergency medical service giving CAS names and numbers of gases.

Ingestion: Do not induce vomiting. Consult physician, emergency medical service or poison center.

CRYSTALLINE SILICA

Routes of Entry: Inhalation: Yes Skin: Yes Ingestion: Yes
Eye Contact: Yes

Effects of Exposure to Crystalline Silica:

Acute: Eyes – contact with crystalline silica dust may cause irritation.

Skin – skin contact with crystalline silica may cause irritation.

Section VI - Toxicological and First Aid Information

Inhalation – cutting, grinding, crushing or drilling products containing crystalline silica may generate dust containing crystalline silica. Repeated exposures to very high levels of respirable crystalline silica (quartz, cristobalite, tridymite) for periods as short as six months have caused acute silicosis. Acute silicosis is a rapidly progressive, incurable lung disease that is typically fatal. Dusts may irritate the nose, throat, and respiratory tract by mechanical abrasion. Coughing, sneezing and shortness of breath may occur.

Chronic: Chronic bronchitis may result from chronic exposure to dust generated from cutting, grinding, crushing, or drilling products containing crystalline silica. Cellular glass insulation dust may contain more than 0.1% crystalline silica, which is a cancer hazard if inhaled. Cancer risk depends on duration and level of exposure. Prolonged exposure to crystalline silica can cause silicosis, a progressive pneumoconiosis (lung disease).

SILICOSIS – The major concern is silicosis, caused by the inhalation and retention of respirable crystalline silica dust. Silicosis can exist in several forms: chronic (or ordinary), accelerated, or acute. Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 centimeter in diameter. Advanced complicated silicosis or PMF may lead to death or heart disease secondary to the lung disease.

CANCER – The International Agency for Research on Cancer (IARC) concluded that “crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)”. Other conditions that may be caused by, or aggravated by exposure to airborne respirable silica include scleroderma, tuberculosis, and kidney failure.

Emergency and First Aid Procedures:

- Eyes:** Immediately flush eyes with plenty of water. Get medical attention, if irritation persists. Remove contact lenses after flushing.
- Skin:** Wash skin with cool water and pH neutral soap or mild detergent intended for use on skin. Get medical attention if irritation develops or persists.
- Inhalation:** Remove from exposure to fresh air immediately. Encourage victim to cough, spit out, and blow nose to remove dust. Consult a physician immediately if irritation persists or later develops.

Section VII - Precautions For Safe Handling and Use

Handling and Storage: Avoid generation of dust. If storing for long periods, protect product from weather.

Exposure Guidelines

Engineering Controls: When cutting, grinding, crushing, or drilling cellular glass insulation, provide general or local ventilation systems, as needed, to maintain airborne dust concentrations below the OSHA PELs, MSHA PELs, and ACGIH TLV. Local vacuum collection is preferred since it prevents release of contaminants into the work area by controlling it at the source. Other technologies that may aid in controlling airborne respirable dust include wet suppression, ventilation, process enclosure, and enclosed employee work stations. When exposed to dust above recommended limits, wear a suitable NIOSH-approved respirator with a protection factor appropriate for the level of exposure. Seek guidance from a qualified industrial hygienist or safety professional, prior to respirator selection and use.

Section VII - Precautions For Safe Handling and Use

Eye/Face Protection: When cutting, grinding, crushing, or drilling Cellular glass insulation, wear safety glasses with side shields or dust goggles in dusty environments.

Steps to be taken In Case Material is Released or Spilled: Collect in sift-proof containers. Avoid generation of dust.

Waste Disposal Method: Follow applicable Federal, State and local regulations for disposal.

Precautions to be Taken in Handling and Storing: Respirable dust particles containing silica may be generated by crushing, cutting, grinding or drilling Cellular glass insulation. Follow protective controls listed in the Exposure Guidelines above when handling these products.

Other Precautions: None

Section VIII - Personnel Protection Information

Eye Protection: Goggles for dust protection while cutting or abrading in wind or overhead work.

Skin Protection: Gloves - rubber impregnated canvas - for abrasion protection. Normal work clothes including long-sleeved shirt.

Respiratory Protection: Use nuisance dust mask when cutting or abrading with adequate ventilation. Seek guidance from a qualified industrial hygienist or safety professional, prior to dust mask/respirator selection and use. (Supplied air or self-contained breathing apparatus in poorly ventilated areas is required when cutting or crushing of Cellular glass insulation causes PEL of hydrogen sulfide and carbon monoxide gases to be exceeded.

Ventilation: Use local exhaust when cutting. Use mechanical ventilation when crushing large volumes.

Other Protective Clothing or Equipment: None

Work/Hygienic Practices: Use good housekeeping and hygiene practices.

Section IX - Shipping Information

DOT Hazard Class: None

Proper Shipping Name: Cellular Glass

UN #: N. AV.

TSCA: Crystalline silica (quartz) appears on the EPA Toxic Substances Control Act inventory under the CAS Number 14808-60-7.

CA Proposition 65: Crystalline silica (quartz) is classified as a substance known to the state of California to be a carcinogen.

IT IS THE RESPONSIBILITY OF A RECIPIENT OF THIS DATA TO REMAIN CURRENTLY INFORMED ON CHEMICAL HAZARD INFORMATION, TO DESIGN AND UPDATE ITS OWN PROGRAM AND TO COMPLY WITH ALL NATIONAL, FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS APPLICABLE TO SAFETY, OCCUPATIONAL HEALTH, RIGHT-TO-KNOW AND ENVIRONMENTAL PROTECTION.